

WE CLAIM:

1. A system for automatically adjusting a home theatre system comprising:
 - a remote control, including:
 - a sensor;
 - a processor communicatively coupled to said sensor; and
 - a first communication device communicatively coupled to said processor in said remote control;
 - a surround sound audio system, including:
 - a main surround sound unit, having:
 - a multi-channel surround sound decoder adapted to decode an encoded multichannel program audio from a program source;
 - an amplifier coupled to said multi-channel surround sound decoder to amplify the decoded program;
 - a second communication device adapted to communicate with said first communication device;
 - a plurality of speakers, wherein said speakers are communicatively coupled to said main surround sound unit;
 - wherein said main surround sound unit generates a test signal based on a first predetermined setting and sends the test signal to at least one of said plurality of speakers wherein said at least one of said plurality of speakers that received said test signal generates an acoustic test signal based on said test signal; and
 - wherein said sensor in said remote control receives the acoustic test signal as an input generated by said one of said plurality of speakers that received the test signal, said sensor in said remote control outputs the input to said processor in said remote control, said processor determines an adjustment which needs to be made so that the acoustic test signals detected by said sensor in said remote control is substantially similar to said first predetermined setting, said processor transmits the adjustment information via said first communication link to said main surround sound unit.

2. A system according to claim 1 wherein said main surround sound unit of said surround sound audio system is a THX™ certified unit.

3. A system according to claim 1, wherein said predetermined setting is a sound pressure level setting.

4. A system according to claim 1, wherein said predetermined setting is a frequency level setting.

5. A system according to claim 1, wherein said predetermined setting is a frequency center setting.

6. A system according to claim 1, wherein said predetermined setting is a frequency bandwidth setting.

7. A system according to claim 1, wherein said predetermined setting is a time delay setting

8. A system according to claim 1, wherein said sensor in said remote control is a microphone.

9. A system according to claim 8, wherein said microphone is a condenser microphone

10. A system according to claim 1, wherein said multi-channel surround sound decoder of said main surround sound unit of said surround sound audio system is a Dolby™ Digital decoder.

11. A system according to claim 1, wherein said processor of said remote control is a digital signal processor.

12. A system according to claim 1, wherein said processor of said remote control is an analog signal processor.

13. A system according to claim 1, wherein said remote control further includes an output display device.

14. A system according to claim 13, wherein said output display device of said remote control is at least one light emitting diode coupled to the processor.

15. A system according to claim 13, wherein said output display device of said remote control is at least one LCD screen coupled to the processor.

16. A system according to claim 1, further comprising:
a display device including :
an output device;
a third communication device adapted to communicate with said first communication device of said remote control;
wherein said display device generates a test signal based on a second predetermined setting and sends the test signal to the output device wherein said output device that received said test signal generates a visual test signal based on said test signal; and
wherein said sensor in said remote control receives the visual test signal as an input generated by said output device that received the test signal, said sensor in said remote control outputs the input to said processor in said remote control, said processor determines an adjustment which needs to be made so that the test signal detected by said sensor in said remote control is substantially similar to said second predetermined setting, said processor transmits the adjustment information via said first communication link to said display device.

17. A system according to claim 16, wherein the display device is a television.

18. A system according to claim 16, wherein said second predetermined setting is a brightness setting.

19. A system according to claim 16, wherein said second predetermined setting is a color level setting.

20. A system according to claim 16, wherein said second predetermined setting is a contrast setting.

21. A system according to claim 16, wherein said second predetermined setting is a tint setting.

22. A system according to claim 16, wherein said second predetermined setting is a white level setting.

23. A system according to claim 1, wherein said main surround sound unit of said surround sound audio system including a network connection device communicatively coupling the main surround sound unit to the internet.

24. A system according to claim 23, wherein said first and second predetermined settings are downloaded from the internet via said network communication device.

25. A method for automatically adjusting at least one of a predetermined plurality of parameters in a home theatre system, the method including the steps of:
 sending a test signal based upon a predetermined setting to a receiver, wherein the test signal is designed to set a home theatre system;
 detecting the test signal by the receiver;
 processing the test signal by the receiver to determine an adjustment information based upon the predetermined setting so that the test signal when adjusted to the adjustment information is substantially similar to the predetermined setting; and
 producing an adjusted test signal that modifies the test signal based upon the adjustment information to substantially match the predetermined setting.

26. The method of claim 25 further including the steps of:
 sending the adjusted test signal to the receiver;

detecting the adjusted test signal by the receiver;
wherein if the adjusted test signal is not substantially similar to the predetermined setting then:
processing the adjusted test signal by the receiver to determine a second adjustment information based upon the predetermined setting so that the adjusted test signal when adjusted to the second adjustment information is substantially similar to the predetermined setting; and
producing a second adjusted test signal that modifies the adjusted test signal based upon the second adjustment information to substantially match the predetermined setting.

27. The method of claim 25 wherein the test signal is an acoustic test signal.

28. The method of claim 27 wherein the predetermined setting is a predetermined sound pressure level.

29. The method of claim 27 wherein the predetermined setting is a predetermined frequency bandwidth.

30. The method of claim 27 wherein the predetermined setting is a predetermined frequency equalization.

31. The method of claim 27 wherein the predetermined setting is a predetermined arrival time delay.

32. The method of claim 27 wherein the test signal receiver is a microphone.

33. The method of claim 25 wherein the processor is a digital signal processor to process the test signal.

34. The method of claim 25 wherein the processor is an analog signal processor to process the test signal.

35. The method of claim 25, further including the steps of:
providing an output device to display information relating to the adjustment processing.
36. The method of claim 25 wherein the test signal is a visual test signal.
37. The method of claim 36 wherein the predetermined setting is a contrast level.
38. The method of claim 36 wherein the predetermined setting is a brightness level.
39. The method of claim 36 wherein the predetermined setting is a color level.
39. The method of claim 36 wherein the predetermined setting is a tint level.
39. The method of claim 36 wherein the predetermined setting is a white level.
40. The method of claim 25 wherein the test signal is detected through an optical sensor.
41. The method of claim 25 further including the step of:
downloading the test signal from the internet.
42. The method of claim 25 further including the step of:
obtaining the test signal from a program source.
43. The method of claim 42 wherein the program source is a digital video disc.
44. A remote control device, comprising:
a sensor adapted to receive a test signal from a multi-channel surround sound system;

a processor, wherein the processor determines an adjustment information based upon the test signal and a predetermined setting so that the test signal when adjusted to the adjustment information is substantially similar to the predetermined setting; and

a communication device adapted to send the adjustment information to the multi-channel surround sound system, wherein the multi-channel surround system corrects the test signal based upon the adjustment information to substantially match the predetermined setting.

45. A remote control device, comprising:

a sensor adapted to receive a test signal from a multi-channel surround sound system; and

a communication device adapted to send the test signal to the multi-channel surround sound system.